DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NH000-0520-01(017) Richmond County
P.I. No.: 210700
I-520 from SR 4/US 1 to SR 10/Gordon Highway

OFFICE: Engineering Services

DATE: June 5, 2009

FROM: Ronald E. Wishon, State Project Review Engineer REW

TO: Tony Collins, District Engineer, Tennille
Attention: George M. Brewer

SUBJECT: **IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES**

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ROADWAY (RD)				
ALT No.	**Description**	**Savings PW & LCC**	**Implement**	**Comments**
A-2	Reduce the width/thickness of the proposed outside asphalt shoulder widening and expedite this phase of work.	$1,348,000	No	This does not apply since A-13 will be implemented.
B-2	Reduce the width/thickness of the proposed outside concrete shoulder widening and expedite this phase of work.	$757,000	No	This does not apply since A-13 will be implemented.
B-2.1	Reduce the 12-inch thickness of the median concrete shoulders by using eight-inch roller compacted concrete.	$325,000	Yes	After further review, either RCC or PCC can be used. OMR will make the final determination. At FHWA's request, a cost comparison has been attached.

ROADWAY (RD) Continued				
ALT No.	**Description**	**Savings PW & LCC**	**Implement**	**Comments**
A-5	Modify the median asphalt shoulder section on the Interstate mainline.	$392,000	No	The asphalt shoulder pavement layers would not match the mainline. Additional stages of construction would offset the cost savings.
B-3	Construct all new Interchange ramps with PCC pavement and eight-inch roller compacted concrete shoulders in lieu of asphalt.	Proposed= (-$169,000) Actual= (-$279,620) cost increase	Yes	All Interstate ramps will be constructed with PCC pavement for the ramps and shoulders. This pavement section was updated by the GDOT State Pavement Engineer.
F-1	Reduce the outside bridge widening by reducing the width of the shoulder from 14 feet to 12 feet.	$95,000	Yes	At the time of the VE Study, the GDOT Bridge Width Policy had changed. The roadway shoulders on each side of the bridge are 12-feet with 10-feet paved.
S-1	Reduce the amount of retaining walls on the project.	$51,000	Yes	This should be done.
B-6	ALTERNATE to Idea B-3: Reduce the 12-inch thickness of the eight-foot median shoulder and 12-foot outside concrete shoulders by using roller compacted concrete.	$875,000	No	This does not apply since A-13 will be implemented.

ROADWAY (RD) Continued				
ALT No.	**Description**	**Savings PW & LCC**	**Implement**	**Comments**
A-13	ALTERNATE to Idea A-2, B-2: Modify the staging plan by eliminating the outside shoulder replacement/widening and using/maintaining the existing shoulders.	Proposed= $2,555,000 Actual= $2,000,000	Yes	This should be done. The entire existing section of I-520 will require overlay to eradicate temporary traffic striping for a rough cost of $555,000.
A-3	ALTERNATIVE to Idea B-3: Construct the three new PCC ramps to Deans Bridge Road Interchange with asphalt pavement and shoulders.	$401,000	No	This does not apply since B-3 will be implemented.
B-7	ATERNATIVE to Idea B-3: Construct eight-inch roller compacted concrete shoulders on the three new PCC paved ramps in the Deans Road Intersection.	$223, 000	No	This does not apply since B-3 will be implemented.
E-4	Include an Incentive-Disincentive Clause for the shoulder widening/replacement phase to expedite the work and minimize the time.	Design Suggestion	Yes	This should be done
C-1	Reduce/modify the pavement design for the project. Consider the use of roller compacted concrete on the mainline pavement.	Design Suggestion	Yes	This should be done.

A Video Conference was held on February 23, 2009 and George Brewer with District Two and Thomas Barwick, Allen Krivsky with Heath and Lineback Engineers, Inc., and Ron Wishon and Douglas Fadool with Engineering Services were in attendance. Additional information was provided by the Project Manager on March 5, 2009 and April 8, and 15, 2009. Discussions/emails continued with FHWA and all issues were resolved on May 29, 2009.

The results above reflect the consensus of those in attendance and those who provided input.

Approved: _____ **Date:** 6/09/09
Gerald M. Ross, PE, Chief Engineer

Approved: for _____ **Date:** 6/10/2009
Rodney Barry, PE, FHWA Division Administrator

REW/DMF/LLM

Attachments

c: Christy Poon-Atkins
Genetha Rice Singleton
Al Jubran
Paul Liles/Bill Ingalsbe/Bill Duvall/Jack Muirhead
Russell Merritt/Lynn Bean/Mike Keene
George Brewer
Jim Kitchings
Ken Werho
Lisa Myers
Matt Sanders
General Files

Recommendation Responses

-Idea A-2: Reduce the width/thickness of the proposed outside asphalt shoulder widening to minimize construction staging and expedite this phase of work.

The total potential savings if accepted is $1,348,000.

This idea is superseded by alternate A-13 which calls for only milling and overlaying the shoulders along I-520 instead of replacing the entire shoulder or a portion of it. GDOT has confirmed that the existing asphalt shoulder sections will be adequate to carry traffic with a milling and overlay section. Therefore, Idea A-2 is not recommended for implementation.

-Idea B-2: Reduce the width/thickness of the proposed outside concrete shoulder widening to minimize construction staging and expedite this phase of work.

The total potential savings if accepted is $757,000.

This idea is superseded by Idea A-13. GDOT has confirmed the existing concrete shoulder is adequate to carry traffic. Therefore, Idea B-2 is not recommended for implementation.

-Idea B-2.1: Reduce the 12-inch thickness of the median concrete shoulder pavement by using eight-inch roller compacted concrete.

The total potential savings if accepted is $325,000.

After further review, either RCC or PCC can be used. OMR will make the final determination. Idea B-2.1 is recommended for implementation.

-Idea A-5: Modify/reduce the typical section for the median asphalt shoulder on the Interstate mainline.

The total potential savings if accepted is $392,000.

Although the pavement quantities would be lower, there would be additional stages of construction required since the pavement layers will not match the mainline pavement. We believe the cost of the additional stages would offset the savings realized with the lower pavement quantities. Therefore, Idea A-5 is not recommended for implementation.

-Idea B-3: Construct all the new Interchange ramps with PCC pavement and eight-inch roller compacted concrete shoulders.

The total potential increase if accepted is $169,000.

For the following ramps we recommend changing the type to PCC pavement since this meets current GDOT design policy for interstate interchanges:

- *Gordon Highway – I-520 EB/SB exit ramp – current design is asphalt - change.*
- *Gordon Highway – I-520 WB/NB exit ramp – current design is asphalt - change.*
- *Deans Bridge Road – I-520 EB/SB exit ramp – current design is asphalt - change.*

The two entrance loop ramps on Gordon Highway will remain in place as asphalt because no work is proposed on those loops. The entrance ramp from Deans Bridge Road WB to I-520 WB/NB will be reconstructed for about 30% of its total length so we do not recommend putting in a section of concrete in between two asphalt sections. The two reconstructed loop ramps from DBR to I-520 are proposed as PCC pavement and the entrance ramp from DBR EB to I-520 EB/SB is proposed as PCC pavement on its reconstructed section. Proposed VE Team increase = $169,000, Actual Increase using the PCC section = $279,620. Idea B-3 is recommended for implementation.

-Idea F-1: Reduce the width of the outside I-520 Bridge widening by reducing the width of the outside shoulder from 14 feet to 12 feet.

The total potential savings if accepted is $95,000.

At the time of the VE Study, with the concurrence of the State Bridge Engineer, the GDOT Bridge Policy had changed regarding shoulders, from 14-feet to 12-feet. Idea F-1 is recommended for implementation.

-Idea S-1: Reduce the amount of retaining walls on the project.

The total potential savings if accepted is $51,000.

Idea S-1 is recommended for implementation.

-Idea B-6: ALTERNATIVE to B-2 & B-2.1 Reduce the 12-inch thickness of the eight-foot median and 12-foot outside concrete shoulders by using roller compacted concrete.

The total potential savings if accepted is $875,000.

This Idea is superseded by Ideas A-13 and B-2.1. GDOT has confirmed the existing concrete shoulders are adequate to carry traffic and do not need to be replaced. Therefore, Idea B-6 is not recommended for implementation.

-Idea A-13: ALTERNATIVE to A-2, B-2 Modify the staging plan by eliminating the outside shoulder replacement / widening by using / maintaining the existing asphalt shoulder (mill and resurface).

The total potential savings if accepted is $2,555,000.

GDOT District 2 has determined that the existing asphalt shoulder section is adequate to handle traffic. Proposed VE Team savings = $2,555,000, Actual Savings using the existing shoulder = $2,000,000. Idea A-13 is recommended for implementation.

-Idea A-3: ALTERNATIVE to Idea B-3 Construct the three new PCC paved ramps at the Deans Road Interchange with asphalt pavement and shoulders.

The total potential savings if accepted is $401,000.

We are recommending acceptance of Idea B-3 since that meets GDOT design policy, and we will only have to change the off ramp from I-520 EB/SB to Deans Bridge Road to PCC as the current design has both loop ramps and two of the other ramps at the DBR interchange proposes PCC pavement. Therefore, Idea A-3 is not recommended for implementation.

-Idea B-7: ALTERNATIVE to Idea B-3 Construct eight-inch roller compacted concrete shoulders on the three new PCC paved ramps in the Deans Road Intersection.

The total potential savings if accepted is $223,000.

This Idea is superseded by the acceptance of Idea B-3. Therefore, Idea B-7 is not recommended for implementation.

Design Suggestions

The VE team also developed various Design Suggestions for further consideration during the design of the project. The Design Suggestions are:

- It is suggested that consideration be given to including an Incentive / Disincentive clause in the contract to cover the staging phase to reconstruct / widen the outside shoulder that will serve as a temporary lane. Having an Incentive / Disincentive clause for this phase will help expedite this work stage thereby reducing the time needed for the single lane night-time operation to prepare the temporary two-lane roadway section needed to widen the mainline in the median.

- It is suggested that a review be made of the concrete pavement design to develop a more applicable section including consideration of roller compacted concrete. The concrete pavement section, being proposed is 28 inches thick and is shown to be used on the shoulders also. This project presents an ideal situation for the use of roller compacted concrete for shoulders and perhaps, even for the short new interior lane as a test / experimental section.
  We recommend acceptance of these suggestions.

Fadool, Douglas

From:	Tom Barwick [tbarwick@heath-lineback.com]
Sent:	Wednesday, March 04, 2009 4:06 PM
To:	Brewer, George; Fadool, Douglas; Wishon, Ron
Cc:	William Allen Krivsky
Subject:	NH000-0520-01(017), Richmond County, PI No. 210700, VE Study Updated Costs

George,

We have run updated costs for the 3 off-ramps (Ramps 1-1, 1-6 and 2-1) that were designed as asphalt. The VE Study recommended changing all ramps to concrete as addressed in Idea B-3. I have included the off-ramp (Ramp 2-6) at Deans Bridge Road that was designed as concrete since the recommendation of Idea A-3 was to switch all ramps to asphalt. The typical section was updated by AJ (State Pavement Engineer) for the concrete as well so I felt that was an additional reason to include Ramp 2-6 in the calculations.

If all ramps including shoulders are designed as concrete PCC pavement, the total cost will be approximately $1,773,560 where the cost of asphalt pavement will be approximately $1,493,940 which will result in a cost increase of $279,620. This cost is higher than the VE Study Idea B-3 increase of $169,000, but we believe that it is still the correct choice.

We also are updating the inside shoulder pavement cost using a reduced asphalt section for the 6.75 foot inside shoulders of I-520 on the entire length of the project. This option addresses Ideas B-2.1 and A-5.

The proposed inside shoulder pavement depth will be changed to 6 inches of asphalt and 18 inches of GAB from the full depth inside shoulder asphalt section of 13.5 inches of asphalt and 12 inches of GAB. The proposed inside asphalt shoulder will also replace the full depth inside shoulder concrete section of 12 inches PCC with a 2 inch binder course and 12 inches of GAB.

* The cost of the full depth shoulder on the asphalt portion of I-520 would cost approximately $1,480,190 where the cost of the reduced depth shoulder would cost approximately $913,740. The full depth concrete shoulder would cost approximately $642,350 where the cost of the asphalt reduced depth shoulder would cost approximately $451,610. This will result in a total potential cost savings of $757,190 if the reduced asphalt depth shoulder is used on the entire project.

Please let me know if you have any questions or comments.

Thanks.

Tom Barwick PE, Heath & Lineback Engineers, Inc.
2390 Cantor Road, Building 200
Marietta, GA 30066-5393
Voice: 770.424.1668 Ext. 109
Direct: 678.569.2465
Fax: 770.424.2907
tbarwick@heath-lineback.com
www.heath-lineback.com

A-5 = NO

* Asphalt Section

$1,480,190
- $913,740
$566,450

B-2.1 = YES

* Concrete Section

$642,350
- $450,610
$190,740

TOTAL = $566,450 + $190,740 = $757,190

Fadool, Douglas

To: christy.poon-atkins@fhwa.dot.gov
Cc: Myers, Lisa; Wishon, Ron
Subject: RE: NH000-0520-01(017), Richmond County, PI No. 210700

Hello Christy,

I have been working with the GDOT Project Manager to obtain answers to your comments, and have responded below to each of your comments (See RESPONSE). Please let me know if these responses are satisfactory. If they are, we will revise the Implementation Letter accordingly and submit to you for your approval.
Thank you for your cooperation.

Douglas Fadool, AVS
Value Specialist
404-631-1764

----- Original Message -----
From: Christy.Poon-Atkins@dot.gov <Christy.Poon-Atkins@dot.gov>
To: Wishon, Ron
Cc: R.Wayne.Fedora@dot.gov <R.Wayne.Fedora@dot.gov>; David.Painter@dot.gov <David.Painter@dot.gov>; Dana.Robbins@dot.gov <Dana.Robbins@dot.gov>; Leon.Kim@dot.gov <Leon.Kim@dot.gov>
Sent: Thu Apr 02 17:20:38 2009
Subject: NH000-0520-01(017), Richmond County

Hi Ron,

The VE study alternatives report for the subject project has been reviewed and discussed within the Division Office. From the review of the recommendations, there were several concerns raised and that should be addressed before approval of the VE study alternatives report. Please see the FHWA GA Division Comments noted below.

Upon your review of the Division Office comments, please let me know how you would like to proceed with the document as submitted. Would you like to make the appropriate modification to the document then resubmit for review or would you like for the Division Office to consider conditional approval of the report.

FHWA GA Division Office Comments:

The GA Division Office Specialists and others have determined that the VE study seems to reverse or contradict long-standing pavement design policies without review by the Pavement Design Committee. Furthermore, as they don't receive much engineering scrutiny they increase the risk to GDOT for design flaws and other incorrect features that will have to be corrected in the field, which adds to the burden on field personnel and increases the ultimate cost of the project beyond the "savings" mentioned in the VE studies.

The following comments on the VE study for the subject project has significant concerns that should be addressed. Please see the items noted below:

1. The Implementation Letter states that Alt B-2.1 will be implemented, but Page 2 of the Recommendation Highlights attached to the letter states that it will not be implemented. Please correct this discrepancy.

RESPONSE: Alt B-2.1 will be implemented and Page 2 of the Recommendation Highlights will be revised to read "will be implemented".

2. Pages 2 and 3 of the Recommendation Highlights state that Alt A-5 will be implemented. Alt A-5 changes the pavement section to one which provides a more "standard full-depth asphalt shoulder design". Unfortunately this is not a standard design used in GA. For example the GA standard design uses 1.25 inches of PEM not the 1.5 inches of PEM mentioned as the top layer per this Alt. Many of the other pavement layers vary similarly from typical GA thicknesses and from the design of the mainline. Furthermore, it is expected that changing the shoulder pavement section will create the need for additional construction steps. The contractor will have to build the shoulder separately as opposed to building it when he builds the mainline lanes. This method of construction would require additional time and funds beyond the "$392K savings" touted for this change. In addition, the need for non-standard special equipment to do less-than-full-lane-width widening on the shoulder will increase the contractor's equipment costs, the cost of the shoulder and will decrease the quality of the shoulder. Therefore the Division Office does not recommend implementation of this alternative.

RESPONSE: Alt A-5 will be revised to read "not be implemented".

3. The overall thrust of Alt F-1 is correct in that each of the two parallel bridges could be narrowed by two feet for a total savings of $95K. However most of the text describing and justifying the narrowing is incorrect and after close evaluation of this alternative, the GA Division Office has determined that narrowing the bridge is not a prudent action.

RESPONSE: The text listed (i, ii, iii) below was cut and pasted by the Designer from the VE Team write-ups and should not have been included with Designer Recommendation Highlights responses. Our revised Implementation Letter package to you will not include this text and will only include: The VE Team Recommendation / The Cost Savings / The Designer,(PM) Responses. I am sorry for sending you the confusing text.

i) The bridge widening as it currently is planned will provide space on each bridge for one new 8' inside shoulder, one new 12' inside lane, 3 existing 12' lanes and a 12' outside shoulder plus a couple of additional feet. This is not "six mainline lanes plus two 14-foot shoulders" per the Alt's explanation. Please correct the text.

ii) The text goes on to state that the widening should be changed to accommodate a "14 foot median shoulder". This is incorrect as the inside median shoulder is 8' wide (actually 6.5' to the face of the barrier). Please correct the text.

iii) The text states that the "outside shoulder width can be reduced to 12 feet because the outside lane is really a ramp and only requires a 12-foot shoulder". Across

the bridge this "ramp" is really an auxiliary lane, which is merged along its length with three mainline lanes. Per the '04 AASHTO Green book Pg 505 states that the outside paved shoulder of a multi-lane freeway should be at least 10 feet wide. GA uses 12 feet. Please correct the text.

iv) Regardless each bridge could be narrowed about two feet to accommodate only one new 8' inside shoulder, one new 12' inside lane, 3 existing 12' lanes and a 12' outside shoulder, but it is more prudent to leave additional two feet in because bridges are constrictions. Traffic cannot escape onto unpaved shoulder in the event of an emergency on the bridges. Per page 505 of the 04' AASHTO Green book the minimum inside shoulder width is 10 feet. Each bridge's inside shoulder is actually 6.5 feet, which is 3.5 feet narrower than the AASHTO minimum for a 6 lane or larger facility. The additional 2 feet on the outside will also give traffic more room to maneuver in the event of an accident, which is one of the likely intents of the AASHTO guidelines on shoulder widths. Please re-evaluate the alternative and explanation thereof and make the appropriate modifications.

RESPONSE: At the time of the original proposed bridge layout, the GDOT design guidelines specified a 14-foot outside shoulder. By the time the VE study was conducted, the GDOT Bridge Department revised the guidelines to a 12-foot outside shoulder which is in line with the 2004 AASHTO Green Book Pg 505 that states "the outside paved shoulder of a multi-lane freeway should be at least 10 feet wide".
The outside Roadway Shoulders at the beginning and ending of the bridges are 12-feet wide, with 10 foot being paved. There will be a shoulder pavement transition from a 12-foot paved shoulder on the bridge to a 10 foot paved shoulder on the roadways. By using a 12 foot shoulder on the bridge, an extra 2 feet (4 feet total both directions) of shoulder width is provided for motorists as compared to the 10-foot outside shoulder minimum requirement in AASHTO 2004.

4. FHWA Division Office recommends VE studies be reviewed by at least the Pavement Design Committee before they go to the field.

RESPONSE: In the future, the Office of Materials and Research (OMR) will be notified about all VE recommendations that affect pavement thicknesses.

Please let me know if you have any questions or comments.

Thank you,

Christy L. Poon-Atkins, P.E.

Districts 2 & 3 Transportation Engineer

Federal Highway Administration, Georgia Division

61 Forsyth Street, S.W. Suite 17T100

Atlanta, GA 30303

Phone: (404) 562-3638 Fax: (404) 562-3703

Myers, Lisa

From: Christy.Poon-Atkins@dot.gov
Sent: Wednesday, June 03, 2009 2:19 PM
To: Myers, Lisa; Brewer, George
Subject: RE: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

Hi Lisa,
I just wanted to let you know that the Division Office Pavement Specialist has coordinated with OMR on recommendation B-2.1, and both offices are in agreement that asphalt shoulders along the concrete mainline pavement section should be removed from the implementation letter.

As for the type of concrete to use, because the length of the section is 1mile, the Division Office would support the Department's choice. Whether it's PCC or RCC, either would accomplish the objective of providing more support along the outside edge of travel and shoulder joint, than an asphalt shoulder would provide. Please move forward with revising the implementation letter to reflect concrete shoulders along the mainline concrete pavement section.

Thank you,
Christy L. Poon-Atkins, P.E.
Phone: (404) 562-3638 Fax: (404) 562-3703

From: Myers, Lisa [mailto:lmyers@dot.ga.gov]
Sent: Monday, June 01, 2009 7:52 AM
To: Brewer, George; Poon-Atkins, Christy (FHWA)
Subject: RE: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

Thanks George.

Christy, please let me know if this is acceptable. If it is, I will revise the implementation letter.

Lisa Myers, AVS ☺
Transportation Engineer Assistant Administrator - VE Coordinator

GA DOT - Engineering Services
One Georgia Center - 5th Floor
600 W. Peachtree Street NW
Atlanta, GA 30308

Voice: 404-631-1770
Fax: 404-631-1956
lmyers@dot.ga.gov

From: Brewer, George
Sent: Friday, May 29, 2009 3:35 PM
To: Poon-Atkins, Christy <FHWA>
Cc: Myers, Lisa
Subject: FW: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

The estimate is attached. It looks like RCC is the way to go. We would use it in the area with existing PCC to the east of Dean's Bridge Road.

George M. Brewer
District Preconstruction Engineer
Georgia Department of Transportation
P.O. Box 8
Tennille, GA 31089
(478)552-4629

From: Tom Barwick [mailto:tbarwick@heath-lineback.com]
Sent: Friday, May 29, 2009 3:06 PM
To: Brewer, George
Subject: RE: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

Let's try that again.

Tom Barwick PE, Heath & Lineback Engineers, Inc.
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From: Brewer, George [mailto:gbrewer@dot.ga.gov]
Sent: Friday, May 29, 2009 2:44 PM
To: Tom Barwick
Subject: RE: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

I didn't get the attachment.

George M. Brewer
District Preconstruction Engineer
Georgia Department of Transportation
P.O. Box 8
Tennille, GA 31089
(478)552-4629

From: Tom Barwick [mailto:tbarwick@heath-lineback.com]
Sent: Friday, May 29, 2009 2:31 PM
To: Brewer, George
Subject: NH000-0520-01(017), Richmond County, PI No. 210700, Inside Shoulder Pavement Option Costs

George,

Please find attached a cost estimate for each of the three options for the inside shoulder pavement for the concrete section of the project. The sections were based on the following sections:

PCC – 8 IN PCC, 2 IN 19mm SP, 18 IN GAB
Asphalt – 1.5 IN 12mm SMA SP, 4 IN 19mm SP, 18 IN GAB
RCC – 8 IN RCC

Please let me know if you require additional information before we send this out to Lisa and Christy.

Thanks,

Tom Barwick PE, Heath & Lineback Engineers, Inc.
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Estimate Report for file "210700-SHLDR"

Section PCC Option

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	9620	TN	17.04	GR AGGR BASE CRS, INCL MATL	163924.80
402-3190	1045	TN	67.77	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	70819.65
430-0200	9500	SY	34.00	PLAIN PC CONC PVMT, CL 1 CONC, 8 INCH TK	323000.00
				Section Sub Total:	**$557,744.45**

Section RCC Option

Item Number	Quantity	Units	Unit Price	Item Description	Cost
000-0001	1	Lump Sum	100000.00	Mobilization Cost for Specialized Equipment	100000.00
442-0100	9500	SY	37.00	Roller Compacted Concrete - 8 IN	351500.00
				Section Sub Total:	**$451,500.00**

Section Asphalt Option

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	9620	TN	17.04	GR AGGR BASE CRS, INCL MATL	163924.80
400-3604	790	TN	91.02	ASPH CONC 12.5 MM SMA, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME	71905.80
402-3190	2090	TN	67.77	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	141639.30
				Section Sub Total:	**$377,469.90**

Total Estimated Cost: $1,386,714.35

PRECONSTRUCTION STATUS REPORT FOR PI:210700-

PROJ ID : 210700-
COUNTY : Richmond
LENGTH (MI) : 3.40
PROJ NO.: NH000-0520-01(017)
PROJ MGR: Brewer, George
OFFICE : District 2
CONSULTANT: Consultant Design (DOT contract)
SPONSOR : GDOT
DESIGN FIRM: Heath & Lineback Engineers, Inc.

I-520 FROM SR 4/US 1 TO SR 10/GORDON HIGHWAY

MPO: Augusta TMA
TIP #: NHS-10
MODEL YR :
TYPE WORK: Widening
CONCEPT: ADD 6R(MED 28)
PROG TYPE: Reconstruction/Rehabilitation
Prov. for ITS: Y
BOND PROJ : URBAN INTERSTATE

DOT DIST: 2
CONG. DIST: 12
BIKE: N
MEASURE: E
NEEDS SCORE: 4
BRIDGE SUFF:

MGMT LET DATE : 08/15/2010
MGMT ROW DATE : 08/21/2009
SCHED LET DATE : 10/21/2010
WHO LETS?: GDOT Let
LET WITH :

SCHED START	SCHED FINISH	ACTIVITY	ACTUAL START	ACTUAL FINISH	%
		Concept Development	1/30/2006	3/6/2008	100
		Concept Meeting	2/13/2007	2/13/2007	100
		PM Submit Concept Report	5/15/2007	5/15/2007	100
		Receive Preconstruction Concept Approval	6/15/2007	6/22/2007	100
		Management Concept Approval Complete	**6/26/2007**	**3/6/2008**	**100**
	8/3/2009	Value Engineering Study	8/15/2008		33
		Public Information Open House Held	10/23/2008	10/23/2008	100
		Environmental Approval	**10/9/2007**	**5/1/2009**	100
		Mapping	6/15/2005	8/1/2005	100
		Field Surveys/SDE	11/8/2005	8/28/2006	100
	7/9/2009	**Preliminary Plans**	**11/8/2005**		90
	6/18/2009	Preliminary Bridge Design	4/1/2008		95
		Underground Storage Tanks	6/17/2008	8/6/2008	100
7/31/2009	8/3/2009	PFPR Inspection			0
8/4/2009	9/8/2009	R/W Plans Preparation			0
9/9/2009	**9/28/2009**	**R/W Plans Final Approval**			**0**
9/9/2009	9/11/2009	L & D Approval			0
9/29/2009	8/25/2010	R/W Acquisition			0
2/5/2010	2/18/2010	Stake R/W			0
		Soil Survey	3/28/2008	11/6/2008	100
6/19/2009	7/28/2009	Bridge Foundation Investigation			0
9/14/2009	**5/25/2010**	**Final Design**			0
11/5/2009	1/27/2010	Final Bridge Plans Preparation			0
6/16/2010	6/17/2010	FFPR Inspection			0
7/1/2010	7/14/2010	Submit FFPR Responses (OES)			0

PROGRAMMED FUNDS

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2005	2005	1,797,585.83	Q05	AUTHORIZED	9/23/2004
ROW	2009	2010	627,200.00	L050	PRECST	
CST	2010	2014	790,400.00	L020	PRECST	
CST	2010	2014	19,219,115.64	L050	PRECST	

PE Cost Est Amt:	1,797,585.83	Date:	
ROW Cost Est Amt:	500,000.00	Date:	3/6/2008
CST Cost Est Amt:	790,400.00	Date:	3/6/2008
CST Cost Est Amt:	14,341,600.00	Date:	3/6/2008

STIP AMOUNTS

Phase	Cost	Fund
PE	0.00	Q05
ROW	167,000.00	L050
CST	18,763,000.00	L050
CST	0.00	L020

PDD: FF>>.
Bridge: RAG 12/02/08 CONSUL - H&L
Design: H&L
EIS: CE appvd.5-1-09/onSched.for Aug. 09 R/W,Updated 5-7-09(JK)
LGPA: NOTIFICATION LETTER SENT TO RICHMOND-AUGUSTA 7-29-04
Planning: MIS COMPLETED: NO VIABLE ALTERNATIVE TO PROJECT. 10/27/97 CJC Work Zone Safety: project considered significant; Trans
Programming: #1 9-06|#2 4-08|#3 5-08|#4 9-08|#5 10-08|#6 12-08|ADDED $444,600 FED 2009 EARMARK 3-27-09
Traffic Op: AWAITING CONSULTANT PFPR PLANS FOR REVIEW
Utility: (JL) NEED 1ST SUB FROM 4 OF 6 UT (2/12/09)
EMG: 2123 (H83-E/V29); DOT=M/S; CONSULT=D

District Comments

5/4/04 Sponsor: Dist; needed proj 6/21/04 Governors Fast Forward Program

May Mtg Notes: CE approved, Need utility plans from Augusta for PFPR

Prel. Parcel CT: 10
Under Review:
Released:
Total Parcel in ROW System:
Options - Pending:
Condemnations- Pend:
Cond. Filed:
Relocations:
Acquired:
Acquired by: DOT
Acquisition MGR:
R/W Cert Date:
DEEDS CT:

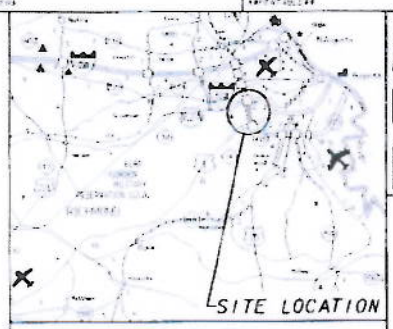
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	NH000-0520-01(017)		

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED
I-520 WIDENING AND INTERCHANGE IMPROVEMENTS AT
GORDON HIGHWAY AND DEANS BRIDGE ROAD
NH000-0520-01(017) RICHMOND COUNTY

FEDERAL AID PROJECT

FEDERAL ROUTE * 520,78,278,1
STATE ROUTE * 10,4
P.I.NO. 210700



LOCATION SKETCH

DESIGN DATA:	I-520	
TRAFFIC A.D.T.:	90100	(2012)
TRAFFIC A.D.T.:	136000	(2032)
TRAFFIC D.H.V.:	13300	(2032)
DIRECTIONAL DIST:	50%	
% TRUCKS:	7%	
24 HR. TRUCKS %:	10%	
SPEED DESIGN:	55 MPH	

LOCATION & DESIGN
APPROVAL DATE: MARCH 6, 2008

FUNCTIONAL CLASS:
URBAN INTERSTATE PRINCIPAL ARTERIAL

THIS PROJECT IS 100% IN RICHMOND COUNTY AND IS 100% IN CONG. DIST. NO. 12.

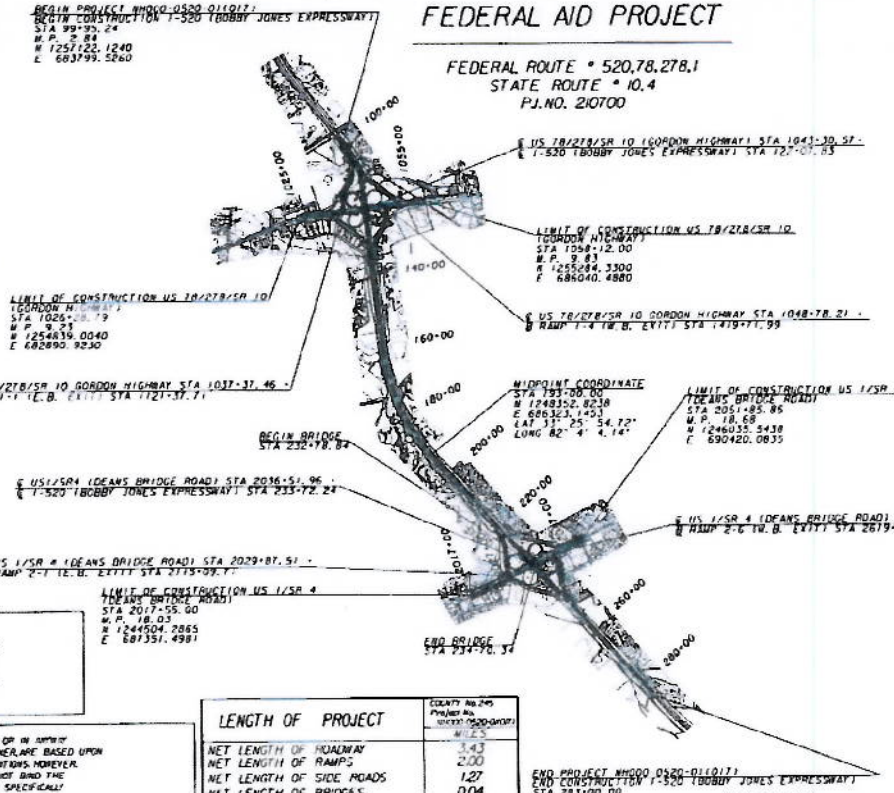
PROJECT DESIGNATION: FULL OVERSIGHT

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF NAD 1983/94 EAST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

NOTE :
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS INSTRUMENT, TO "STATE HIGHWAY DEPARTMENT OF GEORGIA", "STATE HIGHWAY DEPARTMENT", "GEORGIA STATE HIGHWAY DEPARTMENT", "HIGHWAY DEPARTMENT", OR "DEPARTMENT" WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN SUPPORT INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

NH000-0520 01(017) - RICHMOND COUNTY



LENGTH OF PROJECT	COUNTY No. 245 Project No. NH000-0520-01(017) MILES
NET LENGTH OF ROADWAY	3.43
NET LENGTH OF RAMPS	2.00
NET LENGTH OF SIDE ROADS	1.27
NET LENGTH OF BRIDGES	0.04
NET LENGTH OF PROJECT	6.74
NET LENGTH OF EXCEPTIONS	0.00
GROSS LENGTH OF PROJECT	6.74

Heath & Lineback Engineers
INCORPORATED
2300 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5193

PARSONS
5390 TRIANGLE PARKWAY SUITE 100
NORCROSS, GA 30092

PREPARED BY: _____

RECOMMENDED FOR SUBMISSION BY: _____
DESIGN

SUBMITTED BY: _____
DISTRICT ENGINEER

DATE _____ CHIEF ENGINEER

PLANS COMPLETED
REVISIONS